

Notice of Allowability

Application No.

10/789,417

Examiner

Karen E. Toth

Applicant(s)

RONNHOLM, VALTER A. G.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the remarks filed 26 December 2006.
2. ☒ The allowed claim(s) is/are 1, 7, 10, 15-22, 35-38, 43, 44, 47, 53-55, and 63-66.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


CHARLES A. MARMOR II
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

DETAILED ACTION

1. Claims 1, 15-18, 20, 35-38, 44, 47, 54, and 55 are amended. Claims 2-6, 8-9, 11-14, 23-34, 39-42, 45, 46, 48-52, and 56-62 are cancelled. Claims 7, 10, 19, 21, 22, 43, and 53 stand as originally presented. Claims 63-66 are new.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to anticipate or make obvious the structure of claims 1, 7, 10, 15-19, 36, 43, 53-55, 64, and 65, including, *inter-alia*, a device for receiving a signal descriptive of a sleep state, processing the signal, providing a stimulation signal to awaken a user, and being usable for communication by the user when not monitoring sleep, where the device handles incoming calls based on the sleep signal so that the user is not awoken from a deep sleep by a call, and handles the calls differently when the user is awake

The prior art of record fails to anticipate or make obvious the structure of claims 20-22, 35, 37, 38, 47, 54, 63, and 66, including, *inter-alia*, transmitting a polling signal before sending a signal descriptive of sleep when monitoring a sleeping user.

The prior art of record fails to anticipate or make obvious the method of claim 44, including, *inter-alia*, predicting to an outside observer when a monitored sleeping user will reach a suitable time for being awakened.

Lidow (US Patent 4228806) discloses a system for determining when to awaken a user comprising a receiver for receiving a signal descriptive of at least one sleep characteristic of the user (element 60); and a signal processing module for processing the sleep descriptor signal (element 60) that is arranged to provide, in response to the signal, a stimulation signal (element 61; column 2, lines 6-10 and 26-29). Lidow does not disclose the system being usable for communication by the patient when awake.

Lidow also discloses a system for awakening a user comprising at least one sensor responsive to a physiological manifestation that indicates a characteristic of sleep, where the sensor provides a sleep characterizing signal (elements 50-54); a transmitter responsive to the signal for providing the signal to the system's mobile terminal (column 2, line 14; elements 15 and 16); a receiver in the mobile terminal for receiving the signal (column 4, lines 32-34); and a signal processing module at the mobile terminal for processing the signal (element 60). The signal processing module is arranged to provide, at least partly in response to the signal, a stimulation signal indicative that the user should be stimulated towards the awake state (figure 1). Lidow does not disclose the system transmitting a polling signal prior to transmission of the sleep signal.

Koyama (US patent 5101831) discloses a mobile terminal for determining when a user should be stimulated toward an awake state comprising a receiver for receiving a sleep descriptor signal indicative of at least one sleep characteristic of the user (element 11); and a signal processing module for processing the sleep descriptor signal (element 12; figure 2; column 3, lines 53-68). The signal processing module is arranged to

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provide, at least partly in response to the sleep descriptor signal, a stimulation signal (column 8, lines 11-23). Koyama does not disclose the mobile terminal being also usable for communication by the user when in an awake state.

Geva (US Patent Application Publication 2004/0073098) teaches a mobile system that may be used to monitor a patient's sleep stages (paragraph [0152]) that may be incorporated in a device that can be used for communication when not monitoring (paragraphs [0293]-[0294]); however, Geva does not disclose the system handling communications differently based upon the patient's sleep state.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

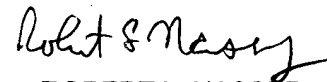
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen E. Toth whose telephone number is 571-272-6824. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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ROBERT L. NASSER
PRIMARY EXAMINER